Records 5

16 Nov 1951

STAT [redacted], EXPERIMENTAL REPRODUCTION MACHINE - 2 Y STAT

1. At the invitation of [redacted] four persons from the Records Mamagement and Distribution Branch today witnessed a demonstration at the [redacted] of an experimental machine, identified merely as 2 Y, which is capable of making from one to six positive, black and white, paper print copies on ordinary paper within about one and one halk minutes. The machine has not yet been developed to a production model, consequently the Corp. believes that it will be about 6 months beforeaany estimate of cost can be arrived at.

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2. The process may be described generally as a "silver transfer" method in that the prints are made by the transfer to the copy paper of a portion of the silver halides from a matrix coated with a silver emulsion. The number of copies which may be obtained from one matrix is determined by the amount of the silver salts removed or transferred to each print copy.

3. The reproduction method is accomplished as follows: The original document, which may be of any color or quality of paper, is placed on the machine so that its image is projected through a lens onto the matrix in approximately a 1 to 1 ratio of original to copy size. The exposed matrix is automatically advanced into a small developing tank, containing a single solution, where it is developed for about 30 to 45 seconds. The wet matrix is then pulled from the developing tank onto an inclined surface and the copy paper is rolled down across the matrix. Immediately thereafter, the copy paper, which by this process has been dampened by the solution, is fed through drying rollers and is pushed out of the machine into the receiving tray.

4. The process appears to be adaptable to the making of reduced-size paper prints or to the making of enlarged size prints from microfilm images. At the present time the Corp. is anxious to receive suggestions as to the potential value of the machine if developed and what the machine should be expected to accomplish. The prints are of high contrast, and hence do not produce high quality protograph reproductions. Good quality pictures such as half-tones, will reproduce acceptably if the screening is quite fine.

5. Samples of the results obtained are attached. Various colors of paper and inks are identified. Also it is possible as can be seen be two examples, to a clear copy of a document on which the printing on the reverse size is so heavy as to give a strong fade-through to the front size.

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